



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99354 • (509) 372-7950

July 17, 2009

Mr. David A. Brockman, Manager
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A7-50
Richland, Washington 99352

Re: Proposed Approval of Site-Specific Land Disposal Restrictions (LDR) Variance

Dear Mr. Brockman:

The Department of Ecology (Ecology) received a petition for an LDR site-specific variance pursuant to Washington Administration Code 173-303-140(2)(a) from the United States Department of Energy (USDOE) - Richland Operations and Pacific Northwest National Laboratory.

Ecology understands that your method of treatment of the subject mixed waste was by sulfate precipitation and subsequent macroencapsulation. This treatment resulted in appropriate stabilization of all underlying hazardous constituents with the exception of barium. We understand that approximately five kilograms of D005 mixed waste did not pass the LDR treatment standard of 21 milligrams per liter via toxicity characteristic leaching procedure laboratory analyses for nonwastewaters.

LDR processing requirements would require this waste to be pulverized and re-macroencapsulated to achieve treatment standards. However, as this is a highly radioactive waste originating from the radiochemical processing laboratory's hot cells, Ecology believes that 40 *CFR* §268.44(h)(2)(i) provisions for variance are applicable as Ecology agrees that treatment to the LDR D005 barium standard for this waste is technically inappropriate.

Ecology proposes to approve the USDOE's site-specific variance petition to encapsulate the waste in an additional high-density polyethylene-lined container system prior to disposal at the Hanford Site Low-Level Burial Grounds without further treatment.



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A 21-day public notice and comment period will be conducted prior to our final decision on this matter. If you have any questions, contact Michelle Mandis, CHMM, PE at 509-372-7970.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jane A. Hedges". The signature is fluid and cursive, with the first name "Jane" being the most prominent.

Jane A. Hedges
Program Manager
Nuclear Waste Program

mm/pll

cc: Dave Bartus, EPA
Dennis Faulk, EPA
Larry Gadbois, EPA
Mike Collins, USDOE
Steve Weil, USDOE
Ty Blackford, CHPRC
Dean Nester, CHPRC
Rob Piippo, CHPRC
J. Vance, FFS
Chris Wollam, FH
Cameron Andersen, PNNL
Harold Tilden, PNNL
Dan Goade, EnergX
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Lela Buck, Wanapum
Russell Jim, YN
Susan Leckband, HAB
Ken Niles, ODOE
Administrative Record: PNNL/LDR/LLBG/325
Environmental Portal